FHWA Office of Innovative Program Delivery

Mission

Improve transportation performance by driving innovation into action through partnerships, technology development, and capacity building

Foster a Culture of Innovation

https://www.fhwa.dot.gov/innovativeprograms/
Center for Accelerating Innovation (CAI)

Center for Innovative Finance Support (CIFS)

Center for Transportation Workforce Development (CTWD)

Center for Local Aid Support (CLAS)

Tony Furst
Chief Innovation Officer

Robert Ritter
Managing Director

Center for Accelerating Innovation

Tom Harman, Director

Accelerates implementation and delivery of new innovations and technologies at the national and local levels

- Facilitates rapid deployment of innovation in the transportation community through the Every Day Counts initiative;
- Fosters & supports the State Transportation Innovation Councils’ national network; and
- Supports innovation through the Accelerated Innovation Deployment grant program.
National STIC Network

Represents multiple stakeholders from the transportation community

comprehensively and strategically considers all sources of innovation
What is “Every Day Counts”? 

Stakeholder-based model to identify and rapidly deploy proven innovations 

EDC Timetables 

EDC-4 (In progress) 

Jan 2017 | Jan 2018 | Jan 2019 | Jan 2021 

Baseline Report | 6-month Progress Reports | Final Report 

Innovation 

Nov - Dec | Jan - May | Aug - Sept | Oct - Nov 

EDC-5 

Office of Innovative Program Delivery
How EDC Works: Deployment

Multidisciplinary deployment teams:

- Assist states to finalize implementation plans
- Provide technical assistance and support:
  - Training
  - Webinars and workshops
  - Demonstrations
  - Peer exchanges
  - Case studies
  - Guidance and specifications

How EDC Works: Reporting

FHWA monitors and reports on state-of-the-practice and successes in accelerating innovations:

- Website
- EDC News (weekly e-newsletter)
- Innovator (bi-monthly e-newsletter)
- EDC Progress reports
- Articles
- Videos
Building on our Achievements

EDC-4 (2017-2018)
- 11 innovations (2 from EDC-3)

EDC-3 (2015-2016)
- 11 innovations (1 from EDC-2)

EDC-2 (2013-2014)
- 13 innovations (3 from EDC-1)

EDC-1 (2011-2012)
- 14 innovations

Accelerating deployment of 43 innovations

Achievements:

WMA Usage
Percentage of Total Asphalt Production in US

Source: National Asphalt Pavement Association
“Mission Accomplished”

47 States and all 3 Federal Lands Highway Divisions have specifications and/or contractual language that allows Warm Mix Asphalt on projects.
Benefits to Using a Whole-Life Approach to Pavement Preservation Project and Treatment Selection

Pavement Preservation: When and Where

Vision

• Focus the use of preservation to **promote** effective strategies that **reduce** the annual cost of managing the pavement network at acceptable performance levels.

Mission

• Provide **guidance** and **implementation tools** that
  - **Assist** agencies in selecting cost-effective pavement preservation projects that **sustain** pavement performance programs
  - **Demonstrate** the cost savings and other benefits that can be realized through effective pavement preservation programs
  - **Facilitate** accelerated national deployment of proven practices that support inclusion of pavement preservation as an asset management strategy.
National Goal

By the end of the project, at least 10 of the States or local agencies that have requested assistance have institutionalized policies governing the selection of pavement preservation projects to support sustainable pavement performance.
Why is this important?

- Performance-based investment decisions
- Development of a 10-year Transportation Asset Management Plan
  - Includes consideration of life cycle planning & risk
  - Sets minimum standards for the use of pavement management systems
  - Links investments to performance targets

Challenges

- Shifting from a worst-first strategy when funding is tight
  - Agencies tend to fight fires
- Availability of qualified contractors, strong construction practices, & good candidates for preservation treatments
- Quantifying the benefits to pavement preservation
  - Lack of adequate distress information
  - Inconsistency in terminology
  - Inconsistencies in treatment use
Challenges

• Aligning District/Region project selection with agency performance targets
  • Inconsistencies across the state
  • Project selection may or may not lead to statewide goals
• Allocating funding based on need (i.e., conditions)
  • Districts or Regions using preservation are penalized

State Practices Illustrate Benefits

A whole life approach reduces the annual cost of preservation, which allows agencies to redirect available funding to other agency priorities

Increased investments in

- Pavement Preservation Treatments
  - Crack sealing
  - Chip seals
  - Microsurfacing

- Bridge Preservation Treatments
  - Sealing of bridge decks
  - Cleaning bridges

- Culvert Preservation Treatments
  - Debris removal
  - Erosion protection

Allowed the Ohio DOT to redirect $300M over 6 years to other pavement, bridge, & culvert priorities
Additional Benefits

The development of a network-level preservation strategy helps ensure agencies will meet performance targets.

Additional Benefits

- Building workforce competencies helps ensure the success of the new way of doing business.

The Knowledge Management Plan is designed to ensure that:

- Employees are prepared to identify when actions are needed
- Share what they’ve learned with others.
When and Where Program: Resources

- Selection Guide
- Analysis Tool
- Peer-to-Peer Exchanges
- Communications Plan
- Asset Management Strategy Guidance
- Cost Effectiveness Metrics

Every Day Counts
An Innovation Partnership with States

EDC Rounds
EDC-4 (2017 - 2018)
EDC-3 (2015 - 2016)
EDC-2 (2013 - 2014)
EDC-1 (2011 - 2012)
Find an Innovation »

Pavement Preservation – How

Source: AppliedPavement Technologies, 2015
Source: VSS/Macquarie, 2016
Source: FHWA, 2013
Source: American Concrete Pavement Association, 2016
Pavement Preservation: How Quality Construction and Materials

Flexible Pavements
- Micro surfacing
- Chip Seal
- Slurry Seal/Scrub Seal
- Ultrathin bonded wearing course

Rigid Pavements
- Diamond grinding
- Partial-depth repair
- Full-depth repair
- Dowel bar retrofit/cross stitching

“How” Program Resources
- Peer-to-Peer Exchanges
  ✓ Share experiences and collect specifications
- Update Pavement Preservation Checklists
- Develop and Deliver Web-based Training
  ✓ Flexible and Rigid Pavements
- Develop Best Practice Technology Briefs
- Videos Highlighting Best Practices
Pavement Preservation: When and Where

Thirteen States and Washington, DC, are developing implementation plans and learning more about when and where to apply pavement preservation treatments. Fourteen States and FHWA are demonstrating and assessing the when and where component of pavement preservation. Another 21 States have made it a standard practice to manage pavements proactively to preserve highway investments.

Attainment of Demonstration, Assessment, or Institutionalized Implementation Across All States

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<thead>
<tr>
<th>Goal</th>
<th>Baseline (Jan 2017)</th>
<th>PR 91 (Jun 2017)</th>
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Pavement Preservation: How

Nine States, Puerto Rico, and Washington, DC, are developing implementation plans and learning more about how to apply pavement preservation treatments. Nine States and FHWA are demonstrating and assessing the how component of pavement preservation. Another 25 States have institutionalized the use of quality construction and materials practices to preserve pavements.
### EDC Timetables

**EDC-4 (In progress)**
- **Baseline Report**: Jan 2017
- **6-month Progress Reports**: Oct - Nov 2018
- **Final Report**: Jan 2019

**EDC-5**
- **Idea Solicitation**: Jan - May 2019
- **Innovation Selection**: Aug - Sept 2019
- **Official Rollout**: Oct - Nov 2019
- **Regional Summits**: Jan 2020
- **State Implementation Plans**: Jan 2021

### Technical Contacts:

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57th Idaho Asphalt Conference  Oct 26, 2017
Thank You!!!
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